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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,405

01/30/2007

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EXAMINER

NGUYEN, HUNG D

ART UNIT

PAPER NUMBER

4118

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/577,405	<b>Applicant(s)</b> DUDZIAK, KAI-UWE	
	<b>Examiner</b> HUNG NGUYEN	<b>Art Unit</b> 4118	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/27/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is responsive to the amendment filed on 4/27/2006. As directed by the amendment: claims 1-3 have been cancelled and new claims 4-6 have been added. Thus, claims 4-6 are presently pending in this application.

#### ***Claim Objections***

2. Claim 4 is objected to because of the following informalities: IFPH tool in line 11. It is suggested to amend –IHPF (Internal High Pressure Forming)–. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meier et al. (US Pat. 6,394,335) in view of Komuro (US Pat. 4,732,819).

5. Regarding claim 4, Meier et al. discloses a method of producing a hollow profile having at least one flange extending along the hollow profile, comprising: roll forming an initial hollow profile from a sheet 1 (Fig. 1a), with at least one flange 7 (Fig. 1d) being formed so as to project from the initial hollow profile 2 (Fig. 1b) by doubling the material

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3 and 4 (Fig. 1b) of the sheet; and internal high pressure forming the initial hollow profile into a finished hollow profile by applying an internal high pressure by means of a fluid into the interior of the initial hollow profile, with the at least one flange being clamped in place in an IHPF tool 8 (Fig. 1d) in such a way that its position and dimensions remain unchanged relative to the finished hollow profile (Col. 3, Lines 25-45), except for welding a joint location of the initial hollow profile outside a region of the flange.

However, Komuro teaches various shapes of tubular frame structure for light weight vehicle such as Fig. 2 where the welded joint 6 (Fig. 2) was outside the region of the flange; Fig. 10 and Fig. 11 show the welded joints also outside the region of the flange. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Meier et al. to have a welding joint location outside a region of the flange, as taught by Komuro, for the purpose of providing a sufficient degree of mechanical strength and rigidity.

Moreover, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a joint at a location outside the region of the flange for the purpose of providing a sufficient degree of mechanical strength and rigidity, since applicant has not disclosed that having free ends locate outside the region of the flange provides an advantage, solves any stated problem, or is used for any particular purpose and it appears that the device would perform equally well with either methods.

Furthermore, absent a teaching as to criticality that free ends locate outside the region of the flange, this particular arrangement is deemed to have been known by

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those skilled in the art since the instant specification and evidence of record fail to attribute any significance (novel or unexpected results) to a particular arrangement. In re Kuhle, 526 F.2d 553,555,188 USPQ 7, 9 (CCPA 1975).

6. Regarding claim 5, Meier et al. further discloses at least one flange, when the IHPF tool is closed 8 Fig. 1d), is acted upon by a holding-down force which prevents a subsequent flow of material from the flange 7 (Fig. 1d) into the finished hollow profile during internal high pressure forming (Col. 3, Lines 37-45).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meier et al. (US Pat. 6,394,335) in view of Komuro (US Pat. 4,732,819) further view of Schulze (US Pat. 6,966,209)

8. Regarding claim 6, the combined references discloses all the claimed features except for allowing a defined subsequent flow of material from the flange into the finished hollow profile during internal high pressure forming. However, Schulze teaches an internal high-pressure deformation method for the production of in particular bulging out closed hollow bodies where the pressure agent is lead through the two flanges 1.1 and 1.2 (Fig. 6; Col. 5, Line 66 to Col. 6, Line 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Meier et al. to allow a defined subsequent flow of material from the flange into the finish hollow profile, as taught by Schulze, for the purpose of jointing/welding at the flange after the internal high-pressure deformation (Abstract).

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomas et al. (US Pat. 6,098,262) discloses a process for manufacturing a hollow body from two metal bars. Ni et al. (US Pat. 5,431,326) discloses a method of forming a tubular member with separate flange.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG NGUYEN whose telephone number is (571)270-7828. The examiner can normally be reached on Monday-Friday, 7:30AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quang Thanh can be reached on (571)272-4982. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG NGUYEN/  
Examiner, Art Unit 4118

/Quang D. Thanh/  
Supervisory Patent Examiner, Art  
Unit 4118